ESA Adolfson

1222 State Avenue NE, Suite 202
Olympia, WA 98506
360.878.9682 phone
360.878.9683 fax

www.adolfson.com

memorandum

date February 11, 2010

to Chehalis River Basin Flood Authority

from ESA Adolfson

subject Coordinated Study RFP

Background

At the January 21 meeting of the Flood Authority, the Authority asked ESA Adolfson to prepare an RFP for a firm to undertake the Coordinated Study. The objective of the study is to develop timely, comparable data on the Corps of Engineers Twin Cities project and an upstream storage facility and examine a possible combination of the two. ESA Adolfson has prepared an RFP, which is attached here. The RFP includes a detailed scope of the work to be performed.

Timing

Since the information provided by the Coordinated Study is necessary for decision making and maintaining progress, we hope to complete the study by the end of 2010. This is an ambitious goal, and it has necessitated a tightened schedule for the firm selection process. To meet these goals, ESA Adolfson recommends that the Flood Authority take action and approve this RFP at the February 18 meeting. Lewis County is prepared to post the RFP on Monday, February 22.

Selection Process

ESA Adolfson recommends that the Authority appoint a selection committee at the February 18 meeting to review proposals and make a recommendation to the Authority.

We would suggest the following people for the selection committee:

1. Three representatives from the Flood Authority
2. Dave Muller to represent Lewis County PUD
3. John Donahue to represent the State of Washington and the Twin Cities project
4. Bruce Mackey and Marjorie Wolfe of ESA Adolfson to provide technical review of the proposals

Proposals are due to Lewis County on March 15th. The selection committee will meet the week of the 15th to review proposals and select a team or a group of teams for interviews. If interviews are needed, they will take place the week of March 22nd. Negotiations on scope and contract with the selected firm will take place in early April. Firm selection and a final contract and scope will be presented to the Authority at the April 15th meeting for approval.

Chehalis River Basin Flood Authority – Flood Storage Facility Design and Economic Feasibility Analysis

REQUEST FOR PROPOSALS

Date Issued: February 22, 2010

Proposals Due: March 15, 2010 prior to 9:00 a.m.

Lewis County, Lead Agency for the Chehalis River Basin Flood Authority (Flood Authority) is seeking a qualified consulting firm or team to provide professional services for completing a Coordinated Study to assess the combined costs and benefits of the U.S. Army Corps of Engineers (Corps) Twin Cities Project and a flood storage facility on the upper Chehalis River mainstem. Tasks include preliminary structural and geotechnical engineering, hydraulic modeling, and preliminary cost-benefit analysis for a flood storage facility on the Chehalis River. The methodology shall be consistent with the Corps modeling and cost-benefit analysis already completed for the Twin Cities Project or as such methodologies and analyses are amended by the Corps in the course of the Coordinated Study.

Background:

For more than 70 years, the local communities of the Chehalis River Basin have worked with a variety of public agencies to find solutions to the chronic flooding problems throughout the basin. However, residents of the watershed today remain fearful that lack of flood protection leaves them vulnerable to the next storm event. Recent flood events occurred in 1996, 2007, and 2009.

The Flood Authority was formed by an Interlocal Agreement among eleven jurisdictions in the Chehalis River basin following the 2007 flood. One of the purposes of the Flood Authority is to develop and implement flood hazard mitigation measures throughout the basin.

The Flood Authority is involved in the Corps Twin Cities Project, which currently proposes 11 miles of setback levees in Centralia and Chehalis and modifications to the Skookumchuck Dam. The Flood Authority is also funding a study initiated by the Lewis County Public Utility District (PUD), which has contracted with EES Consulting to analyze the feasibility of two multi-purpose upstream storage facilities (on the Chehalis mainstem and the South Fork) that would provide flood protection, enhanced summer instream flows, and hydropower. On the Chehalis mainstem, EES proposes a 220,000 acre-foot retention facility. Based on data from the 2007 flood event, EES estimated that 80,000 acre-feet of capacity would be needed for flood reduction. The additional 140,000 acre feet would provide instream flow augmentation and hydropower capacity. Reduced flood levels at various locations downstream have been estimated for both the 2007 flood event (approximately a 500-year flood) and a 100-year flood event. The Flood Authority is interested in developing comparable, timely information and determining whether there is a feasible combination of the two projects, focusing on the feasibility and cost-benefit ratio of a smaller storage facility on the mainstem built solely for flood protection. The Flood Authority doesn't want to preclude the possibility of instream flows and hydropower at this time, but for initial feasibility purposes wants to focus on flood protection.

The proposed Coordinated Study builds on previous efforts to provide a means of determining the cumulative costs and benefits of combining the Twin Cities Levee Project with a smaller storage facility designed solely for flood protection. Previous efforts that are to be considered in this project include the Corps current one dimensional unsteady flow model that was prepared by Northwest Hydraulic Consultants (nhc), the Phase I EES Consulting Feasibility Report, and the Phase IIA geotechnical engineering developed by Shannon and Wilson for the larger storage facilities contracted by the PUD. The proposed Coordinated Study aims to provide an objective approach to cost-benefit analysis consistent with the then applicable Corps of Engineers methodology. A comparable cost-benefit analysis must be used to assess the Twin Cities Project and the storage facility since federal funding will be required for both projects.

In the interests of soliciting quality, informed proposals the following relevant data and studies will be provided to all proposers:

1. A map of the 2009 LiDAR Acquisition Request for the Chehalis River Basin Flood Authority. The LiDAR data are expected to be completed by spring 2010 and will be made available to the successful candidate.
2. A map of the existing extent of the Corps unsteady 1-D model of the Chehalis River mainstem.
3. An electronic copy of the Corps June 2003 Final General Reevaluation Report of the Centralia Flood Damage Reduction Project Chehalis River, Washington which outlines the Twin Cities Project.
4. An electronic copy of the draft Chehalis River Water Retention Facilities Potential Study, February 2009.
5. An electronic copy of the Phase IIA Geotechnical and Geological Reports
6. An electronic copy of the Phase IIB Scope of Work.

An electronic copy of the existing unsteady 1D Corps model of the upper Chehalis from Porter (RM 33) to Doty (RM 101) will be provided to the successful consultant (team).

Objectives:

The goal of the study is to determine the feasibility and value of pursuing both the Twin Cities Project and a flood storage facility project in a way that would maximize basin wide flood protection. The Coordinated Study is intended to provide critical technical, environmental, and economic information necessary for informed decision making to expedite project implementation for flood protection. Specific objectives of this study include the following:

1. Provide preliminary engineering design of an upstream flood storage facility on the upper Chehalis River with sufficient detail to provide reliable cost estimates consistent with federal cost-benefit analysis requirements.
2. Provide hydraulic modeling of the effects of the upstream storage facility that is continuous and consistent with the modeling used in the Twin Cities Levee Project as revised and updated by the Corps during the course of the Coordinated Study.
3. Provide a cost-benefit analysis that combines the costs and benefits of the flood storage facility with the existing cost benefit analysis of the Twin Cities Levee Project, as revised and updated by the Corps during the course of the Coordinated Study.

4. Provide information to assist local leaders, policy makers, stakeholders, and agencies to make informed decisions on the best overall basin-wide flood hazard mitigation plan.

This information is intended to ensure that the most effective flood hazard mitigation strategies are identified, and that the analysis of costs and benefits is performed in a manner that is consistent with applicable Corps of Engineers standards and requirements in order to secure federal funding for the projects.

Scope of Work:

The Flood Authority is initiating this Request for Proposals (RFP) to solicit proposals from firms or teams interested in providing consultant services to help the Flood Authority in this process. The Flood Authority is seeking consultant services to conduct the following tasks:

1. Project management and coordination;
2. Review existing data, studies, and models to determine if there are any gaps;
3. Perform preliminary engineering on a flood storage facility on the upper Chehalis River;
4. Conduct hydraulic and hydrologic modeling to extend the existing unsteady 1D model as revised and updated by the Corps to include modeling of the effect of the upstream storage facility for flood protection only; and
5. Conduct a cost-benefit analysis consistent with applicable Corps methodology and standards.

Task 1: Project Management and Coordination

The Coordinated Study will be based on previous efforts and requires coordination with related concurrent efforts. It is anticipated that there will be a certain amount of coordination and communication necessary to ensure the success of the project. Concurrent efforts include:

1. Phase 2b of the Lewis County PUD study of the two upper basin storage facilities.
2. Corps of Engineers Twin Cities Levee Project, including revised engineering, cost-benefit analysis, and Corps revision and upgrade of the unsteady 1D model to incorporate recent flood events.
3. The FEMA floodplain study of the lower basin below Grand Mound.
4. The new FEMA floodplain maps of the upper basin scheduled to be released on or about March 15, 2010.

The consultant shall provide a liaison to work with the Flood Authority facilitator and provide updates at up to three Flood Authority meetings as requested.

Task 2: Review existing data, studies, and models to develop a gaps analysis

The consultant shall review previous relevant data, studies, and models to determine any critical gaps that may exist to achieve the objectives of the Coordinated Study. In addition, the consultant shall identify value added services that may be incorporated in this study that might provide an improved basis for further work (i.e., any improvements or approaches to the modeling that could cost effectively inform future project assessments).

Deliverables:

A technical memo, data gaps analysis, and value added services.

Task 3: Preliminary engineering of flood storage facility

This task involves design of a single upstream storage facility at a specified location on the Chehalis River upstream of Pe Ell that will provide flood storage volume necessary to protect downstream property from flood events similar to the 2007 flood as well as the 100-year flood event. The facility under consideration is intended to be operated for the purpose of flood protection only. Engineering under this task should build on previous studies conducted by Shannon and Wilson for a multi-purpose storage facility at this site, which was designed to also provide hydropower and storage of flows for summertime release to improve water quality in addition to flood protection. The reconnaissance-level work completed so far on that proposal has concluded that there are no fatal flaws associated with a dam structure at this location. The purpose of this study is to provide preliminary design of a single facility for flood protection only. The preliminary engineering shall be developed to a level of effort sufficient to provide reliable cost estimates for the cost benefit analysis. The facility shall be designed to minimize environmental impacts to the extent possible and to meet applicable state and federal regulations regarding fish passage and dam safety.

Deliverables:

Engineering report

Initial cost estimate

Task 4: Expand hydraulic and hydrologic modeling

Extend the existing unsteady 1D hydraulic model (as revised and updated) upstream to include the effect of the proposed storage facility location upstream of Pe Ell. Develop and incorporate hydrologic flow data using the same flood events being modeled in the Corps update and the 2007 event (if not included in the Corps modeling). The Corps is currently calibrating this model to incorporate data from recent flood events and it is anticipated that the latest version of the calibrated model will be available for use in this analysis. The model shall be developed to meet Corps standards.

If modeling shows that a storage facility in the upper basin would have impacts and associated benefits downstream of Porter, an existing hydraulic model of the lower basin will be used to measure those impacts.

Deliverables

Technical memorandum outlining the development of the model and summarizing model results.

Electronic copies of the model

Task 5: Cost-Benefit Analysis

The consultant shall develop a basin-wide cost-benefit analysis of the storage facility consistent with federal requirements. Benefits are the projected losses avoided from having a storage facility on the mainstem of the Chehalis allowed under federal guidelines. Estimate the benefits from lower flood levels due to the storage facility and any reduced impact from tributaries below the storage facility attributed to its ability to affect timing of tributary flows into the mainstem in coordination with flood protection facilities on the Wynoochee River and Skookumchuck River. Estimated benefits from the storage facility up river and down river from the Twin Cities project are to be additive to the Corps estimates for the Twin Cities project. If the storage facility is estimated to lessen the frequency of major floods within the Twin Cities project, then the marginal benefits of the shifted damage curves should be estimated as well.

The benefit-cost analysis shall be developed working closely with consultants working on Phase 2b to develop and use consistent methodologies for estimating costs and benefits for the proposed storage facilities being developed simultaneously by the PUD and the Coordinated Study.

Deliverables

Cost-Benefit Analysis Report

Timeframe:

Work under this contract is to be completed no later than December 31, 2010. The work may be extended or modified at the discretion of the Flood Authority.

Format of Qualifications and Requirements:

Letter of interest: Introduce yourself and the team and demonstrate your understanding of the nature of the project.

Approach/Methodology: Describe the approach and/or methodology that you will use to complete the tasks described above. Specifically describe how you will ensure that your results are consistent with then current Corps methodology and how you will ensure coordination with on-going projects.

Budget: Include a detailed budget estimate by task. The final budget for the project will be determined as part of contracting.

Personnel: Identify and include brief resumes listing qualifications of key personnel who would be assigned to this work, and describe the anticipated roles of team members in the project. Specify the Principal in Charge and the Project Manager who will serve as the primary contact person. Provide a chart showing the organizational structure of the team.

Experience: Discuss your related experience based upon two to four relevant projects, including client and project information, with your responsibility in the projects, the challenges presented by each project, and the final results. Discuss experience with engineering flood

storage facilities, working with and modifying various hydraulic models, and preparing benefit-cost analyses consistent with Corps of Engineers practices.

Client References: Please provide three references that are familiar with your ability to undertake and complete comparable work. Include contact names, titles, and telephone numbers.

Submittal Information and Proposal Schedule:

Preliminary Schedule (Subject to change)

RFP Issued February 22, 2010

Proposal submittal deadline March 15, 2010, 9:00 a.m.
Notify finalists or selected consultant March 22, 2010
Finalist interviews week of March 22, 2010
Final selection March 26, 2010
Contract scope and budget development early April 2010
Recommendation presented to the Flood Authority April 15, 2010.
Flood Authority makes recommendation to Lewis County April 15, 2010.
Lewis County executes contract for services April 19, 2010

Note: The Flood Authority and Lewis County reserves the right to modify the schedule as circumstances may warrant.

Proposal Quantities, Due Date, Time, Location

Submit 1 original unbound copy, 1 electronic copy, and 10 comb-bound copies of the proposal, which should be a maximum of 25 single-sided 8.5" by 11" pages in 12 point font. Individual resumes are limited to two (2) pages and may be included as an appendix not counted in the proposal page limit. Proposals are due in the office of Lewis County Clerk of the Board no later than 9:00 a.m. on March 15, 2010. Proposals submitted by any means other than mailing, courier or hand delivery will not be accepted. Proposals submitted after the deadline date and time will not be accepted.

Submittal address:

Clerk of the Board / Flood Authority Coordinated Study RFP
Lewis County Board of County Commissioners
351 NW North Street Room 209
Chehalis, WA 98532

Communications with the Authority and Lewis County

Any questions regarding the submittal process and/or aspects of the Request for Proposals may be made via e-mail to Bruce Mackey of ESA Adolfson at bmackey@esassoc.com.

Only e-mail communications will be accepted. All responses will be provided via e-mail. Questions and responses will be shared with all firms that provide an e-mail address to Mr. Mackey. No questions will be accepted after Thursday, March 11th at the 5:00 p.m. close of business.

The Request for Proposals and supporting documents are available for review on the Lewis County web site, www.lewiscountywa.gov, or at the Department of Community Development, 2025 NE Kresky Ave., Chehalis, WA, 98532 during regular business hours.

Minimum Qualifications

It is mandatory that the Bidder have:

- License to do business within the State of Washington.
- Insurance from an insurance carrier or carriers licensed to conduct business in the state of Washington and having a rating of A-, Class VII or better, in the most recently published edition of Best's Reports.
- Professional level knowledge and experience in storage facility, civil, structural, and geotechnical engineering design, hydraulic and hydrologic modeling, and cost-benefit analysis methodology consistent with the Corps of Engineers.
- Professional level experience working with federal, tribal, state and local organizations including the U.S. Army Corps of Engineers.
- Professional level experience in working within rigid timeframes and meeting deadlines.

Bidders who do not meet these minimum qualifications shall be deemed non-responsive and will not receive further consideration.

Evaluation process:

Review Process

A subcommittee appointed by the Flood Authority will review and rate proposals. The subcommittee will recommend finalists for interviews or select a team. If the subcommittee decides interviews are necessary, the interviews will occur during the week of March 22 and selection of a firm by March 26, 2010.

Evaluation Criteria

Consultants will be ranked based upon the qualifications and experience of the consultant team. Consultants will be evaluated on:

- Demonstrated expertise and experience in completing similar types of projects including dam and levee design.
- Key personnel, experience and knowledge.
- Past performance and references.

- Success in working with public sector clients, including effective public involvement, and tribal government.
- Success in working with the Corps of Engineers and using their cost-benefit methodology.
- Applicability of proposal.
- Best value of services considering scope, schedule, and budget.

The Flood Authority reaffirms its right to make any selection it deems prudent.

The successful individual, firm, or consultant team selected will perform a variety of duties as agreed upon in the final negotiated Scope of Work. The selected consultant and Lewis County will finalize the contract terms and conditions. If Lewis County and the selected consultant are unable to agree on terms and conditions at this point, Lewis County may exercise its right to negotiate with other consultants. The Flood Authority will validate any recommendation or tentative agreement made by Lewis County, acting as the Lead Agency.

Publication: Daily Journal of Commerce, February 22, 2010